



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/986,117	11/07/2001	Paer von Malmborg	030481-0181	4675

22428 7590 11/03/2003

FOLEY AND LARDNER  
SUITE 500  
3000 K STREET NW  
WASHINGTON, DC 20007

EXAMINER

FOREMAN, JONATHAN M

ART UNIT	PAPER NUMBER
----------	--------------

3736

DATE MAILED: 11/03/2003

10

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/986,117

Applicant(s)

MALMBORG ET AL.

Examiner

Jonathan ML Foreman

Art Unit

3736

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 8/21/03.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 4-9 and 11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 10 and 12-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

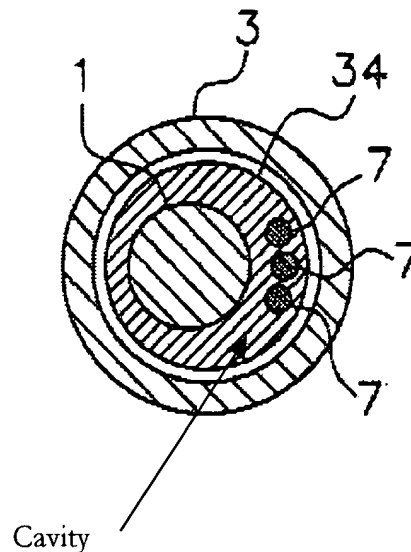
1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 10, 12, 17, 18, 19, 20 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,938,624 to Akerfeldt et al.

In regards to claims 1, 10, 12, 17, 18, 19, 20 and 21, Akerfeldt et al. discloses a male connector for a guide wire which comprises a core wire having a layer of insulating material (Col. 5, lines 15 – 24) and being made of an insulating material (Col. 7, lines 22 – 25), a plurality of conductive members spaced apart longitudinally along the core wire (Col. 4, lines 5 – 9), a plurality of conductors disposed along the core wire, each conductor being connected to the proximal end of a corresponding conductive member and having a layer of insulating material (Col. 4, lines 54 – 67). The core wire is shown to have a shape so that a longitudinal cavity (See Figure) is provided inside the male connector (Col. 6, lines 40 – 44). The cavity disclosed by Akerfeldt et al. is adapted remain substantially intact when the male connector is slightly bent. Akerfeldt et al. discloses the core wire in the male connector being separate from the core wire in the guide wire (Col. 6, lines 58 – 65). Akerfeldt et al. discloses the core wire in the male connector being an extension of the core wire in the guide wire.



### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,938,624 to Akerfeldt et al. in view of U.S. Patent No. 5,382,238 to Abrahamson et al.

In reference to claims 2 and 3, Akerfeldt et al. discloses the core wire having a shape so that a longitudinal cavity is provided between the inner surface of the cylindrical conductive members and the core wire, and that continuous insulating material is disposed between the core wire and the conductive members, a minimum of insulating material being provided the side opposite the cavity (Figure 14; Col. 6, lines 40 – 44). However, Akerfeldt et al. fails to disclose the core wire having a D-shaped cross-section. Abrahamson et al. discloses a D-shaped cross-section provided in a

Art Unit: 3736

catheter assembly wherein a recess is formed as a result of the flat part of the cross-section. This recess is formed to protect wires extending through the recess. It would have been obvious to one having ordinary skill in the art at the time the invention was made, to modify the core wire as disclosed by Akerfeldt et al. to have a D-shaped cross-section to form a protective recess as taught by Abrahamson et al.

5. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,938,624 to Akerfeldt et al. in view of U.S. Patent No. 6,373,705 to Koelle et al.

Akerfeldt et al. discloses insulation material, but fails to disclose the insulation material being a polymer matrix having ceramic particles. Koelle et al. teaches an insulating layer that is preferably made of a polymer into which ceramic particles have been introduced (Col. 4, lines 44 – 46). It would have been obvious to one having ordinary skill in the art to use an insulating material as disclosed by Koelle et al. with the male connector as disclosed by Akerfeldt et al. in order to conduct heat from the conductors effectively. Additionally, the selection of a known material based upon its suitability for the intended use is a design consideration within the skill of the art. *In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA 1960).

6. Claims 14, 15, 16 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,938,624 to Akerfeldt et al. in view of U.S. Patent No. 6,371,972 to Wallace et al.

Akerfeldt et al. discloses an insulating material, and discloses that the core wire can be made of an insulating material. However, Akerfeldt et al. fails to disclose the insulating material consisting of a metal oxidized to a ceramic state. Wallace et al. teaches that oxides with a high dielectric constant are preferred for their electrically resistive insulative properties. Wallace et al. further teaches that such oxides can be formed as a sleeve or hypotube (Col. 7, line 1 – 20). It would have been obvious to one having ordinary skill in the art, in view of Wallace et al. to modify the insulating material as

Art Unit: 3736

disclosed by Akerfeldt et al. to consist of a metal oxidized to a ceramic state in order to take advantage of the electrically resistive insulative properties of such oxides. Additionally, the selection of a known material based upon its suitability for the intended use is a design consideration within the skill of the art. *In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA 1960).

### ***Response to Arguments***

7. Applicant's arguments filed 8/21/03 have been fully considered but they are not persuasive. In regards to Akerfeldt et al., applicant asserts that Akerfeldt et al. does not teach a cavity being proximate to the core wire. The examiner has included a figure to better illustrate the cavity proximate the core wire. The cavity is formed as a result of the shape of the core wire. The core having the size and shape as shown creates a cavity by not filling the entire connector. It has been held that the recitation that an element is "adapted to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138. In the present case, the cavity as disclosed by Akerfeldt et al. would remain intact as long as substantial bending does not occur. In regards to Akerfeldt et al. in view of Abrahamson et al., applicant asserts that Abrahamson et al. does not disclose a "core wire" having a D-shaped cross-section; that the D-shaped portion is merely a hole in a catheter. The examiner agrees. However the teaching that Abrahamson et al. provides is of a D-shaped core that is used to provide a cavity through which wires can extend. It would have been obvious, in view of Abrahamson et al. to modify the core wire as disclosed by Akerfeldt et al. to include such a shape as taught by Abrahamson et al. in order to form a protective recess.

### *Conclusion*

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan ML Foreman whose telephone number is (703)-305-5390. The examiner can normally be reached on Monday - Friday 8:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Max F Hindenburg can be reached on (703)308-3130. The fax phone numbers for the organization where this application or proceeding is assigned are (703)-872-9306 for regular communications and (703)-872-9306 for After Final communications.


Art Unit: 3736

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-308-0858.



JMLF

November 2, 2003



MAX F. HINDENBURG  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700